ABSTRACT

--A multi-layer printed wiring board having via holes is characterized by having the outer copper wifing circuit lines on a layer of an alkaline refractory metal which is adjacent to a thermosetting resin layer. An alkaline refractory metal which is insoluble is alkaline etching solutions, is electrodeposited on the surface of copper foil, then a thermosetting resin is applied to the surface and semi-cured to obtain a coated copper foil The coated copper foil is bonded to one or both faces of an inner layer board having wirings on one or both of its faces. Then, the copper foil on a surface of this laminate is removed by alkaline etching, while selectively leaving the alkaline refractor metal layer. A laser beam is used to form via holes in both the alkaline refractory metal layer and the thermosetting resin layer simultaneously. Via holes of the multi-layered printed wiring board can be easily formed using a laser, and adhesion between the outer wirings made from the plated copper and the insulating resin is improved.--

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In the Claims:

Please rewrite claim 10 as follows:

10. (Twice Amended) A multi-layer printed wiring board having via holes, wherein the outer wirings include copper as an outer layer and an alkaline refractory metal layer between the copper layer and a thermosetting resin layer and the via holes have a copper layer adjacent the thermosetting resin layer, and made by the method comprising

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(a) electrodepositing an alkaline refractory metal which can be dissolved in an acid etching solution on one surface of a copper foil;

(b) applying a thermosetting resin on the electrodeposited alkaline refractory metal of (a) and curing said resin to a semi-cured state, thereby producing a coated copper foil;